



SEQUENCE LISTING

<110> University of Utah Research Foundation
Yale University
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Splawski, Igor
Keating, Mark T
Goldstein, Steve A.N.

<120> MinK-Related Genes, Formation of Potassium Channels and
Association with Cardiac Arrhythmia

<130> 2323-150.a

<140> 09/550,163
<141> 2000-04-14

<150> US 60/129,404
<151> 1999-04-15

<160> 22
<170> PatentIn version 3.1/2.0

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<213> Homo sapiens

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Asn Thr Thr Ala Glu Gln Glu Ala Leu Gln Ala Lys Val Asp Ala Glu
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aac ttc tac tat gtc atc ctg tac ctc atg gtg atg att gga atg ttc 253
Asn Phe Tyr Tyr Val Ile Leu Tyr Leu Met Val Met Ile Gly Met Phe
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cgg gaa cac tcc aat gac ccc tac cac cag tac att gta gag gac tgg 349
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cag gaa aag tac aag agc caa atc ttg aat cta gaa gaa tcg aag gcc 397
Gln Glu Lys Tyr Lys Ser Gln Ile Leu Asn Leu Glu Glu Ser Lys Ala
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acc atc cat gag aac att ggt gcg gct ggg ttc aaa atg tcc ccc 442
 Thr Ile His Glu Asn Ile Gly Ala Ala Gly Phe Lys Met Ser Pro
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 Val Ala Ile Leu Val Ser Thr Val Lys Ser Lys Arg Arg Glu His Ser
 65 70 75 80
 Gln Asp Pro Tyr His Gln Tyr Ile Val Glu Asp Trp Gln Gln Lys Tyr
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cct ggg cca gga cca ggg cca gac aat caa act gag gat cgt cgg gct 384
Pro Gly Pro Gly Pro Gly Pro Asp Asn Gln Thr Glu Asp Arg Arg Ala
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agc ctt cct ggt cgt aat gac aac tcc tac atg tat att ctc ttt gtc 432
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Lys Asn Arg Val Ser Met Ile
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 35 40 45
 Ser Leu Pro Gly Arg Asn Asp Asn Ser Tyr Met Tyr Ile Leu Phe Val
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 Met Phe Leu Phe Ala Val Thr Val Gly Ser Leu Ile Leu Gly Tyr Thr
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<220>
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 <222> (604)..(1113)

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 Phe Leu Ile Gly Ile Met Leu Gly Tyr Met Lys Ser Lys Arg Arg Glu
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 Lys Lys Ser Ser Leu Leu Leu Leu Tyr Lys Asp Glu Glu Arg Leu Trp
 65 70 75 80
 Gly Glu Ala Met Lys Pro Leu Pro Val Val Ser Gly Leu Arg Ser Val
 85 90 95
 Gln Val Pro Leu Met Leu Asn Met Leu Gln Glu Ser Val Ala Pro Ala
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 Leu Ser Cys Thr Leu Cys Ser Met Glu Gly Asp Ser Val Ser Ser Glu
 115 120 125
 Ser Ser Ser Pro Asp Val His Leu Thr Ile Gln Glu Gly Ala Asp
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 <222> (86)..(595)

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 Phe Leu Ile Gly Ile Met Leu Gly Tyr Met Lys Ser Lys Arg Arg Glu
 50 55 60
 Lys Lys Ser Ser Leu Leu Leu Leu Tyr Lys Asp Glu Glu Arg Leu Trp
 65 70 75 80
 Gly Glu Ala Met Lys Pro Leu Pro Met Met Ser Gly Leu Arg Ser Gly
 85 90 95
 Gln Val Pro Met Met Leu Asn Met Leu Gln Glu Ser Val Ala Pro Ala

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130	135	140
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Gly Ser Ser Glu Asn Ile His Gln Asn Ser		
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<210> 13
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<220>
 <223> Description of Artificial Sequence:PCR primer for
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 <212> DNA
 <213> Artificial Sequence

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<220>
 <223> Description of Artificial Sequence:PCR primer for
 mutation screening

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<220>
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<220>
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<220>
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<220>
 <223> Description of Artificial Sequence:HA residues for
 epitope mapping

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<210> 20
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<220>
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 for epitope-mapping

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 <213> rattus norvegicus

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Arg Arg Ser Gln Leu Arg Asp Asp Ser Lys Leu Glu Ala Leu Tyr Ile	35	40	45
Leu Met Val Leu Gly Phe Phe Gly Phe Phe Thr Leu Gly Ile Met Leu	50	55	60
Ser Tyr Ile Arg Ser Lys Lys Leu Glu His Ser His Asp Pro Phe Asn	65	70	75
Val Tyr Ile Glu Ser Asp Ala Trp Gln Glu Lys Gly Lys Ala Leu Phe	85	90	95
Gln Ala Arg Val Leu Glu Ser Phe Arg Ala Cys Tyr Val Ile Glu Asn	100	105	110
Gln Ala Ala Val Glu Gln Pro Ala Thr His Leu Pro Glu Leu Lys Pro	115	120	125
Leu Ser	130		

<210> 22
 <211> 129
 <212> PRT
 <213> homo sapiens

<400> 22
Met Ile Leu Ser Asn Thr Thr Ala Val Thr Pro Phe Leu Thr Lys Leu
1 5 10 15
Trp Gln Glu Thr Val Gln Gln Gly Gly Asn Met Ser Gly Leu Ala Arg
20 25 30
Arg Ser Pro Arg Ser Gly Asp Gly Lys Leu Glu Ala Leu Tyr Val Leu
35 40 45
Met Val Leu Gly Phe Phe Gly Phe Phe Thr Leu Gly Ile Met Leu Ser
50 55 60
Tyr Ile Arg Ser Lys Lys Leu Glu His Ser Asn Asp Pro Phe Asn Val
65 70 75 80
Tyr Ile Glu Ser Asp Ala Trp Gln Glu Lys Asp Lys Ala Tyr Val Gln
85 90 95
Ala Arg Val Leu Glu Ser Tyr Arg Ser Cys Tyr Val Val Glu Asn His
100 105 110
Leu Ala Ile Glu Gln Pro Asn Thr His Leu Pro Glu Thr Lys Pro Ser
115 120 125
Pro